

Claims

1. A method of communication of conversational data signals between terminals (A, B) over a radio link capable of full-duplex transmission of conversational data packets in alternate directions within a pair (T1 to T16) of time slots, said communication comprising time periods each comprising a set of said pairs of time slots, and said terminals (A, B) comprising respective reception and transmission means for use in processing said conversational data packets respectively received at and transmitted from the corresponding terminal,

characterised by detecting local conversational activity at each of said terminals (A, B) respectively, sending conversational activity signals (VAD) indicative of the local conversational activity condition from each of said terminals (A, B) to the other terminal (B, A), controlling said reception and transmission means to communicate by half-duplex transmission of said conversational data packets in response to conversational activity at a first one of said terminals (A, B) but not at the second one of said terminals (B, A), and at least partially deactivating said reception means at said first terminal (A, B) and said transmission means at said second terminal (B, A) during said half-duplex transmission so as to reduce their power consumption.
2. A method as claimed in claim 1 wherein controlling said reception means and said transmission means comprises at least partially switching off the supplies of power to said reception means and said transmission means.
3. A method as claimed in claim 1 or 2, wherein controlling said reception and transmission means comprises generating audible comfort noise at said first terminal (A, B) from a locally generated comfort noise signal during said half-duplex transmission.
4. A method as claimed in any preceding claim, wherein said conversational data packets are communicated without return transmission of acknowledgement signals.

5. A method as claimed in any preceding claim, wherein said conversational data packets comprise voice signals and the duration of said time periods corresponds to a phoneme period.
6. A method as claimed in any preceding claim, wherein said conversational data packets are transmitted between said terminals over said radio link substantially in conformity with the Bluetooth standard.
7. A method as claimed in any preceding claim, wherein said conversational activity signals (VAD) are distinct from said conversational data packets.
8. A method as claimed in any preceding claim, wherein said local conversational activity detection is performed during each of said time periods at each of said terminals (A, B), and said conversational activity signals (VAD) are sent from each of the terminals to the other terminal at least once during each of said time periods.
9. A method as claimed in 8 where conversational activity signals are sent from each of the terminals to the other terminal in the same time slot pair and control the half-duplex transmission direction for the next time period
10. 8. b. A method as claimed in any preceding claim, wherein at least a first one of said terminals (B) communicates with a third terminal (C) over a further communication link, said first terminal (B) signalling a conversational activity signal (VAD) indicative of conversational activity generated at said third terminal (C).
11. A method as claimed in claim 10, wherein the same activity procedure is used in synchronization between all said terminals (A, B, C).
12. A method as claimed in claim 10 or 11, wherein a different activity procedure is used in synchronization between one of said terminals (B) and another of said terminals (A) than between said one of said terminals (B) and a third one of said terminals (C).

13. A method as claimed in any of claims 10 to 13, wherein said further communication link is a cellular telephone link.
14. A terminal for use in a method as claimed in any preceding claim, comprising said reception and transmission means for use in processing said conversational data packets, radio link means for communicating said conversational data packets over said radio link capable of full-duplex transmission of conversational data packets in alternate directions within a pair of time slots, said communication comprising time periods each comprising a set of said pairs of time slots, conversational activity detection means for detecting local conversational activity at said terminal, signalling means for sending in each of said periods a conversational activity signal (VAD) indicative of the local conversational activity from the local terminal to said other terminal, and control means responsive to conversational activity occurring at a first one of said terminals (A, B) and not occurring at the second one of said terminals (B, A) for controlling said reception and transmission means to communicate by half-duplex transmission of said conversational data packets and for at least partially deactivating during said half-duplex transmission either said reception means in the absence of remote conversational activity or said transmission means in the absence of local conversational activity so as to reduce power consumption.
15. A terminal as claimed in claim 14 wherein said control means comprises means for at least partially switching off the supplies of power to said reception means and said transmission means during said half-duplex transmission.
16. A terminal as claimed in claim 14 or 15, wherein said control means comprises means for generating audible comfort noise from a locally generated comfort noise signal during said half-duplex transmission.